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EXAMINER	
NGUYEN, KEVIN M	
ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 07/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/525,021	KATSUYUKI KOBAYASHI	
	Examiner	Art Unit	
	Kevin M. Nguyen	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-158 and 165-229* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-158 and 165-229* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/02/2004 has been entered. An action on the RCE follows:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-19, 45-68, 76-158 and 165-228 are rejected under 35 U.S.C. 102(e) as being anticipated by Narabu (newly cited, US 6,081255).

3. As to claims 1, 50, Narabu teaches a system associated with a method, the system comprising

A detection block 28 (detection device, fig. 4), a light source 12 (a light source, fig. 4), an x-direction sensor 23 and a y-direction sensor 24 (a plurality of photoelectric conversion elements, fig. 4),

[recited in lines 8-12 of claim 1]

In FIG. 22, the amplitude of the output signal changes less abruptly around the maximum amplitude than the output signal of FIG. 21. In this case also, in the same way as in FIG. 21, the point where the output signal has the maximum amplitude can be defined as the middle point C2 of points A2 and B2, assuming that A2 is the point where the output signal exceeds the threshold potential in the negative direction and B2 is the point where the output signal returns within the threshold potential (col. 10, lines 33-40).

[recited in lines 13-14 of claim 1]

FIG. 16 is a time chart of an output signal from the linear sensor 4 when light comes to a place different from the case of FIG. 15. A similar change can be seen in the waveform of the output signal from the linear sensor, but the change of the waveform occurs at a different place (col. 9, lines 13-17).

The signal from this one line memory 42 is supplied to the OP amplifier 43, where the signal is compared to a threshold potential generated by the threshold generator 43, and the comparison result is supplied to the first flip-flop 49 and via the inverter 46 to the second flip-flop 50 (col. 11, lines 4-8).

[recited in lines 15-18 of claim 1]

The first flip-flop 49 supplies the output to the first counter 44 at the timing of the point A (point A1 in FIG. 21 and point A2 in FIG. 22). The first counter 44 counts a clock count A from the start of the one line up to the tail timing fed from the first flip-flop 49 and supplies the clock count A to the average calculator 48. The second flip-flop 45

supplies the second counter 45 with the timing of the point B (point B1 in FIG. 21 and point B2 in FIG. 22) (col. 11, lines 10-16).

As to claims 2, 51, Narabu teaches an average calculator 48 (calculation means, fig. 23, col. 10, line 64), maximum luminance position signal (coordinate output means, fig. 23, col. 11, lines 25-26).

As to claims 3-10, 52-59, Narabu teaches recited in col. 9, lines 13-17 and col. 10, lines 33-40 meet the claimed limitations. Thus, the signal A and the signal B (fig. 23) are the different signals. The threshold generator 47 compares the signals from x-direction linear sensor 23 to generate maximum luminance position signal (fig. 23).

As to claims 11-14, 60-63, Narabu teaches the control block 26 (integration means, fig. 4), thus, three signals x, y, z are integral one output signal (fig. 4).

As to claims 15-19, 64-68, Narabu teaches the control block 26 (skim means, fig. 4), thus, three signals x, y, z are reduced one output signal (fig. 4).

4. As to claims 45-47, 87-89, 127-129, Narabu teaches a system associated with a method, the system comprising

A detection block 28 (detection device, fig. 4), a light source 12 (a light source, fig. 4), an x-direction sensor 23 and a y-direction sensor 24 (a plurality of photoelectric conversion elements, fig. 4),

[recited in lines 9-13 of claim 45]

In FIG. 22, the amplitude of the output signal changes less abruptly around the maximum amplitude than the output signal of FIG. 21. In this case also, in the same way as in FIG. 21, the point where the output signal has the maximum amplitude can be

defined as the middle point C2 of points A2 and B2, assuming that A2 is the point where the output signal exceeds the threshold potential in the negative direction and B2 is the point where the output signal returns within the threshold potential (col. 10, lines 33-40). [recited in line 14 of claim 45]

FIG. 16 is a time chart of an output signal from the linear sensor 4 when light comes to a place different from the case of FIG. 15. A similar change can be seen in the waveform of the output signal from the linear sensor, but the change of the waveform occurs at a different place (col. 9, lines 13-17).

The signal from this one line memory 42 is supplied to the OP amplifier 43, where the signal is compared to a threshold potential generated by the threshold generator 43, and the comparison result is supplied to the first flip-flop 49 and via the inverter 46 to the second flip-flop 50 (col. 11, lines 4-8).
[recited in lines 15-19 of claim 45]

The first flip-flop 49 supplies the output to the first counter 44 at the timing of the point A (point A1 in FIG. 21 and point A2 in FIG. 22). The first counter 44 counts a clock count A from the start of the one line up to the tail timing fed from the first flip-flop 49 and supplies the clock count A to the average calculator 48. The second flip-flop 45 supplies the second counter 45 with the timing of the point B (point B1 in FIG. 21 and point B2 in FIG. 22) (col. 11, lines 10-16).

As to claims 48, 49, Narabu teaches Vth of A2 corresponds to setting first threshold value, and Vth of B2 corresponds to setting second threshold value as claimed (see fig. 22).

5. As to claims 76, 86, Narabu teaches a system associated with a method, the system comprising

A detection block 28 (detection device, fig. 4), a light source 12 (a light source, fig. 4), an x-direction sensor 23 and a y-direction sensor 24 (a plurality of photoelectric conversion elements, fig. 4),

[recited in lines 7-11 of claim 76]

In FIG. 22, the amplitude of the output signal changes less abruptly around the maximum amplitude than the output signal of FIG. 21. In this case also, in the same way as in FIG. 21, the point where the output signal has the maximum amplitude can be defined as the middle point C2 of points A2 and B2, assuming that A2 is the point where the output signal exceeds the threshold potential in the negative direction and B2 is the point where the output signal returns within the threshold potential (col. 10, lines 33-40).

[recited in lines 12-15 of claim 76]

In FIG. 22, the amplitude of the output signal changes less abruptly around the maximum amplitude than the output signal of FIG. 21. In this case also, in the same way as in FIG. 21, the point where the output signal has the maximum amplitude can be defined as the middle point C2 of points A2 and B2, assuming that A2 is the point where the output signal exceeds the threshold potential in the negative direction and B2 is the point where the output signal returns within the threshold potential (col. 10, lines 32-40).

Accordingly, Vth of A2 corresponds to setting first threshold value, and Vth of B2 corresponds to setting second threshold value as claimed (see fig. 22).

As to claims 77-85, Narabu teaches the point where the output signal has the maximum amplitude can be defined as the middle point C2 (effective difference signals) of points A2 (the first threshold value) and B2 (the second threshold value), assuming that A2 is the point where the output signal exceeds the threshold potential in the negative direction and B2 is the point where the output signal returns within the threshold potential (col. 10, lines 35-40).

As to claims 90-115, Narabu teaches a system (fig. 4) associated with a data carrier carrying processor-implementable instructions for carrying a method.

6. As to claims 130-138, Narabu teaches a system associated with a method, the system comprising

A detection block 28 (detection device, fig. 4), a light source 12 (a light source, fig. 4), an x-direction sensor 23 and a y-direction sensor 24 (a plurality of photoelectric conversion elements, fig. 4),

[recited in lines 5-9 of claim 130]

In FIG. 22, the amplitude of the output signal changes less abruptly around the maximum amplitude than the output signal of FIG. 21. In this case also, in the same way as in FIG. 21, the point where the output signal has the maximum amplitude can be defined as the middle point C2 of points A2 and B2, assuming that A2 is the point where the output signal exceeds the threshold potential in the negative direction and B2 is the point where the output signal returns within the threshold potential (col. 10, lines 33-40).

[recited in lines 10-11 of claim 130]

FIG. 16 is a time chart of an output signal from the linear sensor 4 when light comes to a place different from the case of FIG. 15. A similar change can be seen in the waveform of the output signal from the linear sensor, but the change of the waveform occurs at a different place (col. 9, lines 13-17).

The signal from this one line memory 42 is supplied to the OP amplifier 43, where the signal is compared to a threshold potential generated by the threshold generator 43, and the comparison result is supplied to the first flip-flop 49 and via the inverter 46 to the second flip-flop 50 (col. 11, lines 4-8).

[recited in lines 12-15 of claim 130]

The first flip-flop 49 supplies the output to the first counter 44 at the timing of the point A (point A1 in FIG. 21 and point A2 in FIG. 22). The first counter 44 counts a clock count A from the start of the one line up to the tail timing fed from the first flip-flop 49 and supplies the clock count A to the average calculator 48. The second flip-flop 45 supplies the second counter 45 with the timing of the point B (point B1 in FIG. 21 and point B2 in FIG. 22) (col. 11, lines 10-16).

As to claims 139-141, Narabu teaches a system (fig. 4) associated with a data carrier carrying processor-implementable instructions for carrying a method.

7. As to claims 142-158, 165-191, Narabu teaches a system associated with a method, the system comprising

A display block 27 (display means, fig. 4), a detection block 28 (detection device, fig. 4), a light source 12 (a light source, fig. 4), an x-direction sensor 23 and a y-direction sensor 24 (a plurality of photoelectric conversion elements, fig. 4),

[recited in lines 9-13 of claim 142]

In FIG. 22, the amplitude of the output signal changes less abruptly around the maximum amplitude than the output signal of FIG. 21. In this case also, in the same way as in FIG. 21, the point where the output signal has the maximum amplitude can be defined as the middle point C2 of points A2 and B2, assuming that A2 is the point where the output signal exceeds the threshold potential in the negative direction and B2 is the point where the output signal returns within the threshold potential (col. 10, lines 33-40).

[recited in lines 14-15 of claim 142]

FIG. 16 is a time chart of an output signal from the linear sensor 4 when light comes to a place different from the case of FIG. 15. A similar change can be seen in the waveform of the output signal from the linear sensor, but the change of the waveform occurs at a different place (col. 9, lines 13-17).

The signal from this one line memory 42 is supplied to the OP amplifier 43, where the signal is compared to a threshold potential generated by the threshold generator 43, and the comparison result is supplied to the first flip-flop 49 and via the inverter 46 to the second flip-flop 50 (col. 11, lines 4-8).

[recited in lines 16-20 of claim 142]

The first flip-flop 49 supplies the output to the first counter 44 at the timing of the point A (point A1 in FIG. 21 and point A2 in FIG. 22). The first counter 44 counts a clock count A from the start of the one line up to the tail timing fed from the first flip-flop 49 and supplies the clock count A to the average calculator 48. The second flip-flop 45

supplies the second counter 45 with the timing of the point B (point B1 in FIG. 21 and point B2 in FIG. 22) (col. 11, lines 10-16).

As to claims 192-213, Narabu teaches a system (fig. 4) associated with a data carrier carrying processor-implementable instructions for carrying a method.

As to claims 214-228, Narabu teaches a system (fig. 4) associated with a data carrier carrying processor-implementable instructions for carrying a method, the system comprising

A detection block 28 (detection device, fig. 4), a light source 12 (a light source, fig. 4), an x-direction sensor 23 and a y-direction sensor 24 (a plurality of photoelectric conversion elements, fig. 4),

[recited in lines 16-17 of claim 214]

FIG. 16 is a time chart of an output signal from the linear sensor 4 when light comes to a place different from the case of FIG. 15. A similar change can be seen in the waveform of the output signal from the linear sensor, but the change of the waveform occurs at a different place (col. 9, lines 13-17).

The signal from this one line memory 42 is supplied to the OP amplifier 43, where the signal is compared to a threshold potential generated by the threshold generator 43, and the comparison result is supplied to the first flip-flop 49 and via the inverter 46 to the second flip-flop 50 (col. 11, lines 4-8).

[recited in lines 11-15 and lines 18-21 of claim 214]

The first flip-flop 49 supplies the output to the first counter 44 at the timing of the point A (point A1 in FIG. 21 and point A2 in FIG. 22). The first counter 44 counts a clock

count A from the start of the one line up to the tail timing fed from the first flip-flop 49 and supplies the clock count A to the average calculator 48. The second flip-flop 45 supplies the second counter 45 with the timing of the point B (point B1 in FIG. 21 and point B2 in FIG. 22) (col. 11, lines 10-16).

As to claims 116-126, Narabu teaches a system (fig. 4) associated with a data carrier carrying processor-implementable instructions for carrying a method.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 20-44, 69-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narabu in view of Elrod et al (previously cited, US 5,341,155).

As to claims 20, 40, 69, Narabu teaches all of the claimed limitations, except for light spot onto the screen surface.

Elrod et al teaches the light source 22 emitting a light spot on the screen surface 20 (see figure 8, column 10, lines 11-22).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Narabu's cursor including a light spot on the screen surface, in view of the teaching Elrod's reference because this would provide a light spot for representation.

As to claims 21-39, 70, Elrod et al teaches the light pen 22 being adjacent on the screen surface 20 (see figure 5).

As to claims 40, 41, 71, 72, Elrod et al teaches the detection means 28 receives light diffused through the screen surface from the pointer 22 (see figure 3).

As to claims 42, 43, 73, 74, Elrod et al teaches the cyclical variation of the intensity of the light source comprises alternating the intensity of the light source 22 between a first and second level (button switches T, F, M, R make the intensity of light on and off).

As to claims 44, 75, Elrod et al teaches the dimensions of the light source are arranged so that light emitted from the light source 22 is incident light on at least two photoelectric conversion elements of the plurality of photoelectric conversion elements of said detection device 28 (see figure 3).

10. Claim 229 is rejected under 35 U.S.C. 103(a) as being unpatentable over Narabu in view of Shaffer et al (previously cited, US 6,050,690).

As to claim 229, Narabu teaches all of the claimed limitation of claim 226, except for "the data carrier is a signal downloaded over a communication network."

Shaffer et al teaches a related system which includes the data carrier is a signal downloaded over a communication network 142 (see figure 10, column 8, line 64 to column 7, line 9).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide the data carrier is a signal downloaded over a communication network taught by Shaffer et al for Narabu's system because this would provide the

additional information for a user to view at other locations (column 9, lines 9-12 of Shaffer).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on MON-THU from 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kevin M. Nguyen
Patent Examiner
Art Unit 2674

KN
July 10, 2004

XIAO WU
PRIMARY EXAMINER